CULTURAL RESOURCES SURVEY OF THE GATE FORD 115kV TRANSMISSION PROJECT, LANCASTER AND KERSHAW COUNTIES, SOUTH CAROLINA

CHICORA RESEARCH CONTRIBUTION 473

CULTURAL RESOURCES SURVEY OF THE GATE FORD 115kV TRANSMISSION PROJECT, LANCASTER AND KERSHAW COUNTIES, SOUTH CAROLINA

Prepared By:
Michael Trinkley, Ph.D., RPA
and
Nicole Southerland

Prepared For:
Mr. Tommy L. Jackson
Central Electric Power Cooperative
P.O. Box 1455
Columbia, SC 29202

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Chicora Foundation, Inc.
PO Box 8664
Columbia, SC 29202-8664
803/787-6910
www.chicora.org

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ABSTRACT

This study reports on an intensive cultural resources survey of an approximately 9.5 mile corridor in Lancaster and Kershaw Counties, South Carolina. The work was conducted to assist Central Electric Power Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The corridor is to be used by Central Electric Power Cooperative for the construction of a transmission line. The line will connect an existing transmission line (at the western end) to a substation (at the eastern end). The topography is undulating, crossing several drainages.

The proposed undertaking will require the clearing of the corridor, followed by construction of the proposed transmission line. These activities have the potential to affect archaeological and historical sites that may be in the project corridor or lot. For this study an area of potential effect (APE) 0.5 mile around the proposed transmission project was assumed.

An investigation of the archaeological site files at the S.C. Institute of Archaeology and Anthropology failed to identify any previously recorded archaeological sites in the project APE.

The S.C. Department of Archives and History GIS was consulted for any previously recorded architectural sites. One site, 1009, was found in Lancaster County, while two sites, 1165 and 1193, were found in Kershaw County. Site 1009 is a c. 1910 house that was recorded, but not evaluated, during a 1988 architectural survey of Lancaster County (Gettys and Associates 1988). Site 1165 is a c. 1915 house and site 1193 is a c. 1904 house, both found not eligible for the National Register during a 2002 historic resources survey for Kershaw County (New South 2002).

The archaeological survey of the corridor incorporated shovel testing at 100-foot intervals along the center line of the 75-foot right-of-way, which was marked by stakes. All shovel test fill was screened through ¼-inch mesh with a total of 502 shovel tests excavated along the corridor.

As a result of these investigations, two sites (38LA566 and 38LA567) were identified. Site 38LA566 is a prehistoric scatter while 38LA567 is a prehistoric scatter with a sparse historic component. Both sites are recommended not eligible for the National Register for the inability to address significant research questions.

A survey of public roads within a 0.5 mile of the proposed undertaking was conducted in an effort to identify any architectural sites over 50 years old which also retained their integrity. The previously identified structures were revisited and still deemed to be not eligible for the National Register. No additional structures were identified that may be potentially eligible for the National Register. Resource 1009, which was not previously assessed, cannot be seen from the project corridor, however it appears to have had several alterations that would consider it to be not eligible for the National Register.

Finally, it is possible that archaeological remains may be encountered in the project area during clearing activities. Crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and,

if necessary, have been processed according to 36CFR800.13(b)(3).

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INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Tommy Jackson of Central Electric Power Cooperative and is intended to assist this client comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of a 9.5 mile corridor to be used for a transmission line, which is located on the border of Lancaster and Kershaw counties, South Carolina (Figure 1). It should be noted, however, that the map in Figure 1 – *State of South Carolina* – was published in 1970 and shows the corridor entirely in Kershaw County. In 1977, Kershaw County lost a portion of this land to Lancaster County – the modern boundary is shown approximately. The corridor runs roughly west-east, beginning at an existing transmission line and ending at a substation lot, previously surveyed for Lynches River Electric Cooperative (Trinkley and Southerland 2006). The substation, which had not been constructed at the time of the present survey, is located at the corner of Ed Baxley Road and Lockhart Road (S-20) (Figure 2).

The corridor exhibits variable topography, crossing ridge tops, ridge side slopes, and low creek areas. Most of the vegetation is either mixed pine and hardwood forests or planted pines, although several wetland drainage areas are also found.

The proposed corridor, as previously mentioned, is intended to be used as a transmission route. Landscape alteration, primarily clearing and construction, including erection of poles, will damage the ground surface and any archaeological resources that may be present in the survey area. Construction and maintenance of the transmission line may also have an impact on historic resources in the project area.

The project will not directly affect any historic structures (since none are located on the survey corridor), but the completed facility may detract from the visual integrity of historic properties, creating what some consider discordant surroundings. As a result, this architectural survey uses an area of potential effect (APE) 0.5 mile radius around the proposed corridor.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development or expansion of the transmission corridor in Kershaw or Lancaster county.

We were requested by Mr. Tommy Jackson of Central Electric Power Cooperative to perform a cultural resources survey for the transmission corridor on April 30, 2007. Investigations started shortly thereafter.

Examination of the site files at the S.C. Institute of Archaeology and Anthropology revealed no previously identified sites in the project APE.

Initial background investigations also incorporated a review of the site files at the South Carolina Department of Archives and History. As a result of that work three sites were identified in the 0.5 mile APE. One site, 1009, was found in Lancaster County, while two sites, 1165 and 1193, were found in Kershaw County. Site 1009 is a c. 1910 house that was recorded, but not evaluated, during a 1988 architectural survey of Lancaster County (Gettys and Associates 1988). Site 1165 is a c. 1915 house and site 1193 is a c. 1904 house, both found not eligible for the National Register during a 2002 historic resources survey for

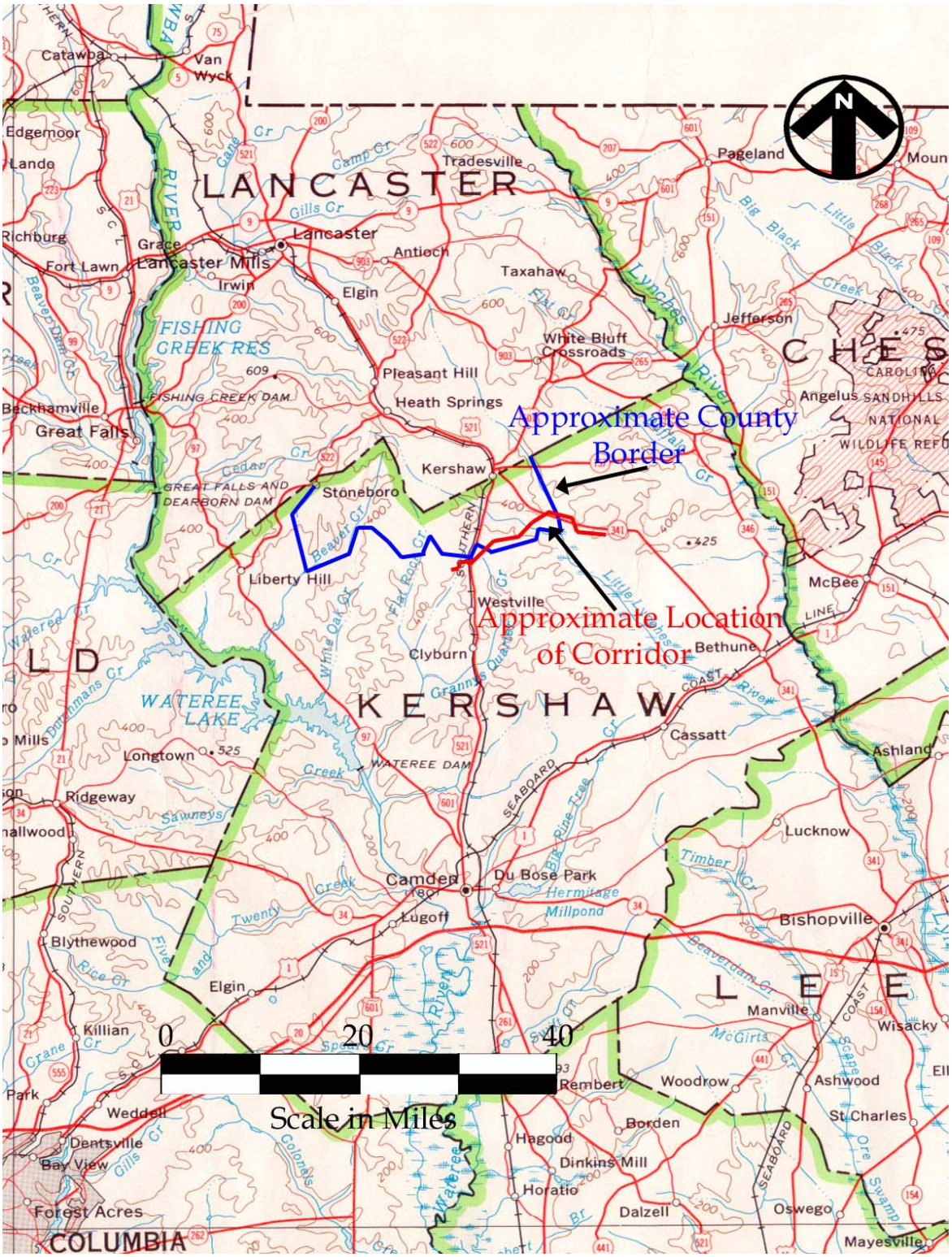

Figure 1. Project vicinity in Lancaster and Kershaw counties (basemap is USGS South Carolina 1:500,000).

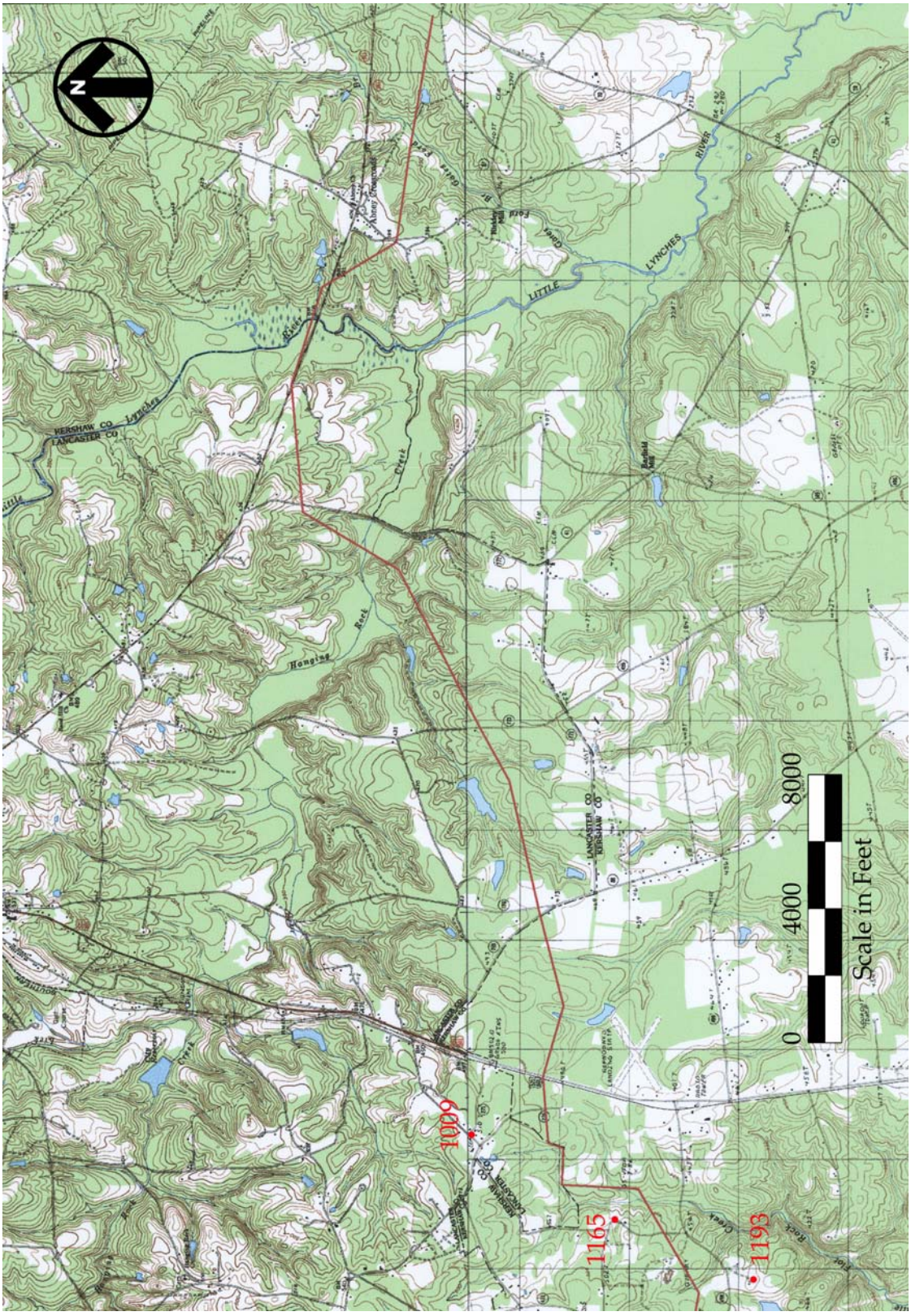

Figure 2. Project corridor with previously identified architectural sites (basemap is USGS White Oak Creek, Kershaw, Westville, and Mt. Pisgah 7.5')

Kershaw County (New South 2002).

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted from May 15-18, 2007 by Ms. Nicole Southerland and Ms. Julie Poppell under the direction of Dr. Michael Trinkley and revealed two archaeological sites – 38LA566 and 38LA567. Both sites are recommended not eligible for the National Register.

The architectural survey of the APE, designed to identify any structures over 50 years in age that retain their integrity and that are potentially eligible for the National Register of Historic Places revealed no structures. The previously recorded structures were revisited and photographed. None of the structures are visible from the transmission corridor so will not be visually affected.

Report production and artifact evaluation was conducted at Chicora's laboratories in Columbia, South Carolina from May 28 to June 1, 2007. The only photographic materials associated with this project are digital, which are not archival and will be retained for only 90 days. All other field notes and the resulting collections will be curated at the South Carolina Institute of Archaeology and Anthropology.

This report details the investigation of the project area undertaken by Chicora Foundation and the results of that investigation.

ENVIRONMENTAL BACKGROUND

Physiography

The project area, in the central portion of South Carolina, is located in Kershaw and Lancaster counties in the Atlantic Coastal Plain. The project corridor is located on the Fall Line, which divides the Upper Coastal Plain and the Piedmont. Kershaw County is bounded to the north by Lancaster County, to the south by Sumter and Lee counties, and to the west by Fairfield and Richland counties. Lancaster County, which forms part of South Carolina's north central boundary with North Carolina, is separated from Chesterfield County to the east and from Farifield, Chester, and York counties to the west. To the south, Lancaster County is bordered by Kershaw County.

Kershaw County contains three physiographic regions: the Piedmont, the Sandhills, and the Coastal Plain, while Lancaster County encompasses the Piedmont and the Coastal Plain. The Piedmont is separated from the Coastal Plain by an irregular line, known as the Fall Line, that extends north from the vicinity of Camden in Kershaw County to just west of Kershaw where it loops westward taking in Heath Springs and Pleasant Hill before turning back to the south and running into Kershaw County. There the Fall Line again tends northward, crossing U.S. 601 and extending to Taxahaw in Lancaster County. From Taxahaw it runs south, parallel to the west bank of the Lynches River, for about 6 miles before crossing and extending back northward, taking in the town of Jefferson in Chesterfield County. The Fall Line is the transition zone between the soft sediments of the Coastal Plain and the igneous and metamorphic rocks of the Piedmont.

The Coastal Plain extends from the Atlantic Ocean for about 150 miles to the Fall Line and has rolling topography, with elevations ranging from about 150 feet above mean sea level (AMSL) to 200 feet AMSL. In the adjacent floodplains and lowlands, slopes range from 0 to 2% with elevations typically less than 150 feet AMSL.

Piedmont topography is characterized by dissected plains consisting of the hills and valleys cut by creeks and rivers as they flow toward the Coastal Plain. Possibly part of the peneplain, the Piedmont is characterized by a range of

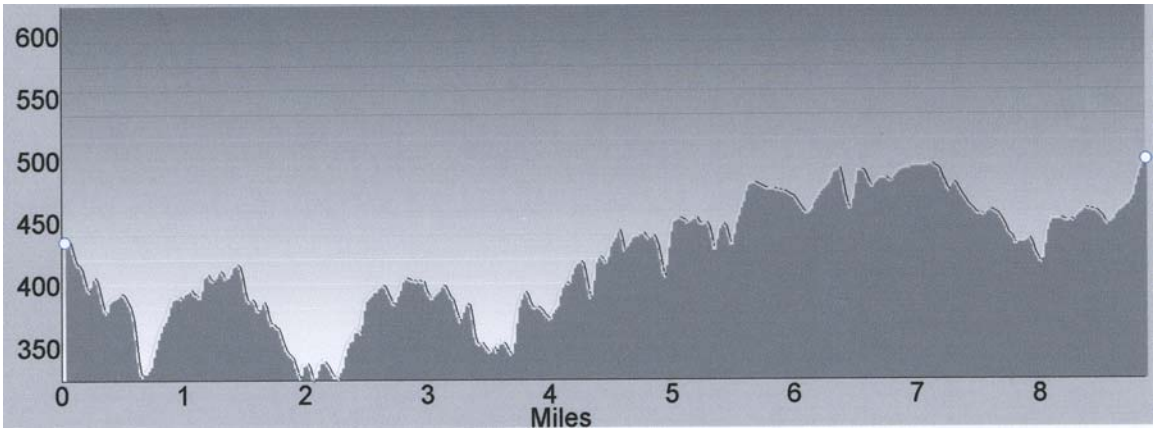

Figure 3. Profile of the survey corridor.

metavolcani, quartz, and quartzite materials used by Native Americans for stone tools.

Nearby are the Carolina Sand Hills, an area of discontinuous hilly topography characterized by rounded hills with gentle slopes, moderate relief, and sandy soils. Although technically part of the Coastal Plain geology, the Sand Hills are distinct geographically. Much of the sand was blown into dunes during the Miocene, although weathered clays and very old river deposits are also present. In many cases these sandy deposits lie directly on the crystalline rocks of the Piedmont (Kovacik and Winberry 1987; Murphy 1995).

The project area, therefore, is in close contact with a range of physiographic regions. This provides a broad ecotone allowing access to a range of resources.

Along the project corridor, elevations range from about 300 to 500 feet above mean sea level (AMSL). Figure 3 profiles the corridor, revealing the rugged terrain, drainage areas, and especially the variation in grades. While there are areas with flat, level ridgetops, these are relatively uncommon. Most of the corridor runs along the side slopes where grades reach upward of 10%.

Geology and Soils

The geology of the county is characterized by unconsolidated water-laid beds of sand, silt, and clay. Coastal Plain material consists of marine-deposited sediments made dominantly of quartz sand and kaolinic clays (Mitchell 1989: 101). Most of the rocks of the Piedmont are gneiss and schist, with some marble and quartzite (Hasselton 1974). Some less intensively metamorphosed rocks, such as slate, occur along the eastern part of the province from southern Virginia into Georgia. This area, called the Slate Belt, is characterized by slightly lower ground with wider river valleys. Consequently, the Slate Belt has been favored for reservoir sites (Johnson 1970), as well as prehistoric occupation (see Coe 1964). In Lancaster and Kershaw counties, many of the Piedmont soils are weathered from argillites rich in silica and alumina. Other sols are formed in saprolite that weathered from crystalline rocks and "Carolina slates." Soils from the river floodplains formed in sediment that washed from the uplands of the Piedmont province.

A considerable amount of granite is also found in the Kershaw area, as evidenced by several quarries one of which is located adjacent to the current transmission line (Figure 4). This quarry produces Pink Kershaw Granite, which is primarily used in monumental, ornamental, and interior designs (www.rockofages.com/quarry/index.php).

The project crosses 13 different soil series, all of which are itemized in Table 1. As the table reveals, 60.6% of the corridor has well-drained soils. Excessively and somewhat excessively drained soils make up a total of 32% of the corridor, while somewhat to very poorly

Figure 4. View of the quarry adjacent to the transmission corridor.

drained soils make up 6.8% of the total. The Toccoa-Cartecay complex represents 0.4% of the corridor, which is either moderately well drained or somewhat poorly drained.

Within the well drained soils, the Ailey Series was found most often. Ailey soils have an A horizon of light brownish gray (10YR6/2) sand to 0.8 foot over a light yellowish brown (10YR6/4) sand to 2.2 feet in depth. Cecil soils have an A horizon of reddish brown (5YR4/3) sandy loam to 0.5 foot in depth over a reddish brown (5YR5/4) sandy loam to 0.9 foot in depth. Durham soils have an Ap horizon of grayish brown (10YR5/2) loamy sand to 0.6 foot in depth over a light yellowish brown (10YR6/4) sandy loam to 1.0 foot in depth. Georgeville soils have an A horizon of reddish brown (5YR4/3) loam to a depth of 0.4 foot over a red (2.5YR4/6) clay to 2.2 feet in depth. The Herndon Series has an A horizon of brown (10YR5/3) loam to 0.5 foot in depth over a brownish yellow (10YR6/8) silty clay to 1.8 feet in depth. Nason soils have an A horizon of brown (10YR4/3) loam to 0.5 foot in depth over a yellowish brown (10YR5/4) loam to a depth of 0.8 foot. Wagram soils have an Ap horizon of grayish brown (10YR5/2) sand to 0.7 foot over a light yellowish brown (10YR6/4) sand to 1.3 feet in depth.

Lakeland soils have an A horizon of gray (10YR5/2) sand to 0.4 foot over a very pale brown (10YR7/4) sand to 1.8 feet in depth. Blanton soils have an A horizon of gray (10YR5/1) sand to 0.3 foot over a pale brown (10YR6/3) sand to a depth of 1.9 feet.

Chewacla soils have an A horizon of brown (10YR4/3) loam to 0.7 foot in depth over a brown (10YR5/3) loam to 1.3 feet in depth. The subsoil is a light yellowish brown (10YR6/4) loam to a depth of 2.5 feet. Dorovan muck is located on floodplains is black. Johnston soils are a black (10YR2/1) loam to 0.9 foot in depth.

Table 1.
Soils in the Project Corridor (from Mitchell 1989)

Soil Series	Drainage	% of Corridor
Ailey Sand, 0-10% slope	Well Drained	34.0%
Blanton Sand, 0-10% slope	Somewhat Excessively Drained	16.0%
Cecil Sandy Loam, 2-6%	Well Drained	2.0%
Chewacla Loam	Somewhat Poorly Drained	6.0%
Dorovan Muck	Very Poorly Drained	0.4%
Durham Loamy Sand, 2-6% slope	Well Drained	12.0%
Georgeville Loam, 2-10% slope	Well Drained	7.0%
Herndon Loam, 2-6% slope	Well Drained	0.8%
Johnston Loam	Very Poorly Drained	0.4%
Lakeland Sand, 0-6% slope	Excessively Drained	16.0%
Nason Loam, 6-10% slope	Well Drained	0.8%
Toccoa-Cartecay Complex	Moderately Well Drained/Somewhat Poorly Drained	0.4%
Wagram Sand	Well Drained	4.0%

The Toccoa – Cartecay Complex soils are found on some floodplains in the Piedmont (Mitchell 1989: 47). The moderately well drained Toccoa soils have an Ap horizon of dark brown (10YR4/3) sandy loam to 0.8 foot in depth over a yellowish brown (10YR5/4) loamy fine sand to 1.5 feet in depth. The somewhat poorly drained Cartecay soils have an A horizon of dark yellowish brown (10YR4/4) silt loam to a depth of 0.8 foot over a yellowish red (5YR5/6) sandy loam to 1.3 feet in depth.

Climate

Elevation, latitude, and distance from the coast work together to affect the climate of South Carolina. In addition, the more westerly mountains block or moderate many of the cold air masses that flow across the state from west to east. Even the very cold air masses, which cross the mountains are warmed somewhat by compression before they descend on the Piedmont and adjacent Sand Hills.

Figure 5. View of typical vegetation along the corridor.

Consequently, the climate of Kershaw and Lancaster counties is temperate. The winters are relatively mild and the summers are warm and humid. Rainfall in the amount of about 46 inches is adequate, although less than in some neighboring counties. About 27 inches of rain occur during the growing season, with periods of drought not uncommon during the summer months. As Hilliard illustrates, these droughts tended to be localized and tended to occur several years in a row, increasing the hardship on those attempting to recover from the previous year's crop failure (Hilliard 1984: 16). Perhaps the best wide-scale example of this was the drought of 1845, which caused a series of very serious grain and food shortages throughout the state.

Floristics

The natural vegetation of the project area is the Oak-Hickory-Pine forest, composed of medium tall to tall forests of broadleaf deciduous and needleleaf evergreen trees (Küchler 1964). The major components of this ecosystem include hickory, shortleaf pine, loblolly pine, white oak, and post.

Much of the project corridor is covered in either mixed pine and hardwood forests or areas of planted pines (Figure 5). Smaller wetland drainages are also present as well as larger wetland areas around Hanging Rock Creek and the Little Lynches River.

PREHISTORIC AND HISTORIC SYNOPSIS

Previous Research

Kershaw County has received a good bit of archaeological attention. Derting et al. (1991) cites 96 reports ranging from compliance projects (see for example Caballero 1984 and Goodyear and Anderson n.d.) to work at Historic Camden (see Calmes 1968 or Lewis 1976).

Several studies have also been performed at Pinder Hill Plantation (see Trinkley 1999 and Trinkley et al. 2001). Otherwise, the closest survey performed near the current project consists of the substation lot at the eastern end of the corridor. No sites were located during that survey (Trinkley and Southerland 2006).

Lancaster County, on the other hand, has received relatively little archaeological attention. Derting and his colleagues list only 34 reports associated with the county, with 29 of these (or 85%) representing highway, transmission line, reservoir, or sewer surveys (Derting et al. 1991). Although dated, this indicates that the attention has been focused on relatively narrow, constrained corridors, with only minor attention devoted to the area's rich prehistoric and protohistoric resources.

Prehistoric Overview

Overviews for South Carolina's prehistory, while of differing lengths and complexity, are available in virtually every compliance report prepared. There are, in addition, some "classic" sources well worth attention, such as Joffre Coe's *Formative Cultures* (Coe 1964), as well as some new general overviews (such as Sassaman et al. 1990 and Goodyear and Hanson 1989). Also extremely helpful, perhaps even essential, are a handful of recent local synthetic statements, such as that offered by Sassaman and Anderson (1994) for the Middle and Late Archaic and by Anderson et al. (1992) for the Paleoindian and Early Archaic. Only a few of the many sources are included in this study, but they should be adequate to give the reader a "feel" for the area and help establish a context for the various sites identified in the study areas. For those desiring a more general synthesis, perhaps the most readable and well balanced is that offered by Judith Bense (1994), *Archaeology of the Southeastern United States: Paleoindian to World War I*. Figure 6 offers a generalized view of South Carolina's cultural periods.

Paleoindian Period

The Paleoindian Period, most commonly dated from about 12,000 to 10,000 B.P., is evidenced by basally thinned, side-notch projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977; Williams 1965). Oliver (1981, 1985) has proposed to extend the Paleoindian dating in the North Carolina Piedmont to perhaps as early as 14,000 B.P., incorporating the Hardaway Side-Notched and Palmer Corner-Notched types, usually accepted as Early Archaic, as representatives of the terminal phase. This view, verbally suggested by Coe for a number of years, has considerable technological appeal.[1] Oliver suggests a continuity from the Hardaway Blade

[1] While never discussed by Coe at length, he did observe that many of the Hardaway points, especially from the lowest contexts, had facial fluting or thinning which, "in cases where the side-notches or basal portions were missing, . . . could be mistaken for fluted points of the Paleo-Indian period" (Coe 1964:64). While not an especially strong statement, it does reveal the formation of the concept. Further insight is offered by Ward's (1983:63) all too brief comments on the more recent investigations at the Hardaway site (see also Daniel 1992).

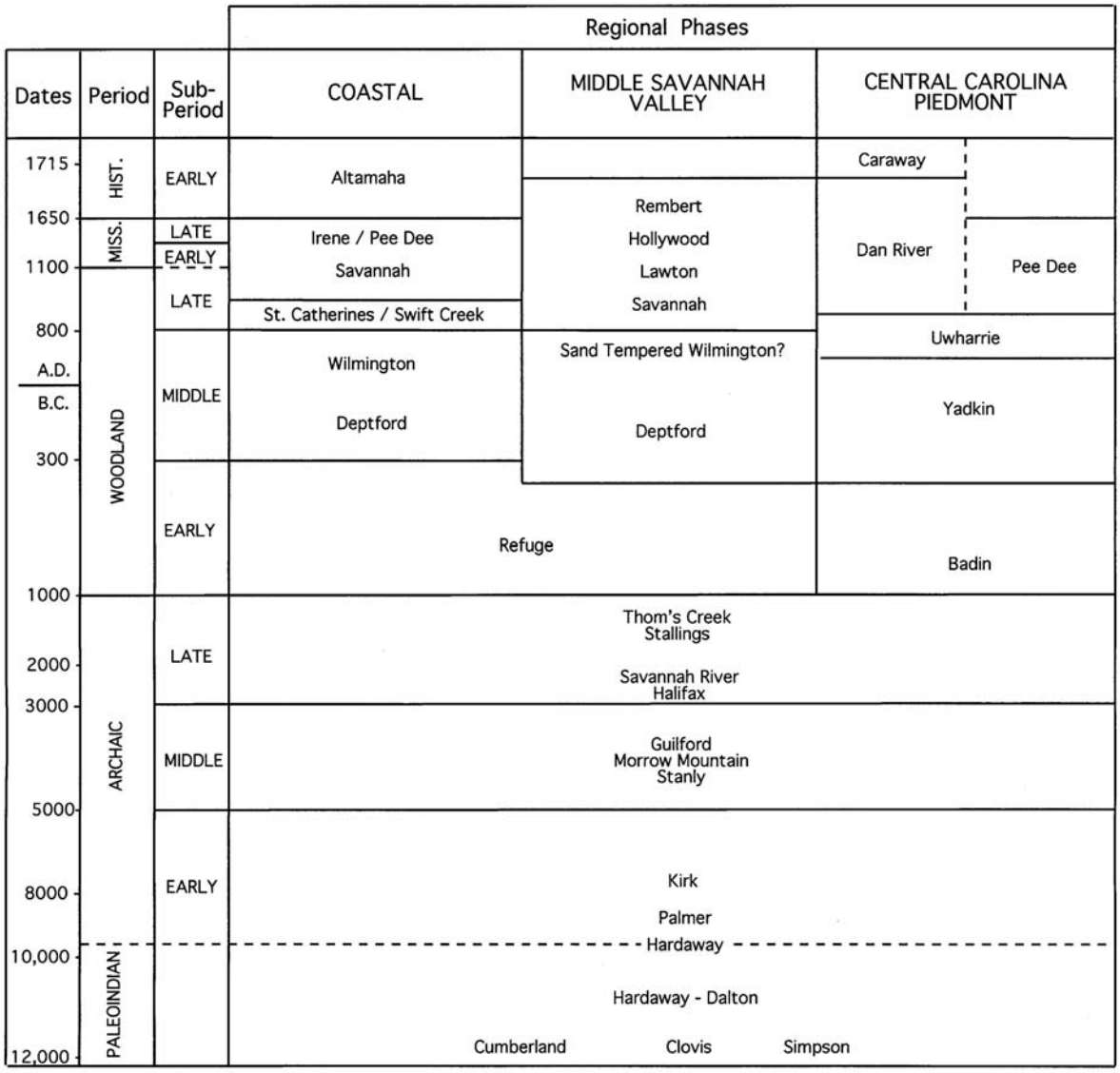

Figure 6. Generalized cultural sequence for South Carolina.

through the Hardaway-Dalton to the Hardaway Side-Notched, eventually to the Palmer Side-Notched (Oliver 1985:199-200). While convincingly argued, this approach is not universally accepted.

The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented toward the exploitation of now extinct mega-fauna" (Michie 1977:124). Survey data for Paleoindian tools, most notably fluted points, is somewhat dated, but has been summarized by Charles and Michie (1992). They reveal a widespread distribution across the state (see also Anderson 1992b:Figure 5.1) with at least several concentrations relating to intensity of collector activity. What is clear is that points are found fairly far removed from the origin of the raw material. Charles and Michie suggest that this may "imply a geographically extensive settlement

system" (Charles and Michie 1992:247).

Although data are sparse, one of the more attractive theories that explains the widespread distribution of Paleoindian sites is the model tracking the replacement of a high technology forager (or HTF) adaptation by a "progressively more generalized band/microband foraging adaption" accompanied by increasingly distinct regional traditions (perhaps reflecting movement either along or perhaps even between river drainages) (Anderson 1992b:46).

Distinctive projectile points include lanceolates such as Clovis, Dalton, perhaps the Hardaway, and Big Sandy (Coe 1964; Phelps 1983; Oliver 1985). A temporal sequence of Paleoindian projectile points was proposed by Williams (1965:24-51), but according to Phelps (1983:18) there is little stratigraphic or chronometric evidence for it. While this is certainly true, a number of authors, such as Anderson (1992a) and Oliver (1985) have assembled impressive data sets. We are inclined to believe that while often not conclusively proven by stratigraphic excavations (and such proof may be an unreasonable expectation), there is a large body of circumstantial evidence. The weight of this evidence tends to provide considerable support.

Unfortunately, relatively little is known about Paleoindian subsistence strategies, settlement systems, or social organization (see, however, Anderson 1992b for an excellent overview and synthesis of what is known). Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Archaic Period

The Archaic Period, which dates from 10,000 to 3,000 B.P.[2], does not form a sharp break with the Paleoindian Period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited animal. Archaic period assemblages, exemplified by corner-notched and broad-stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

Many researchers have reported data suggestive of a noticeable population increase from the Paleoindian into the Early Archaic. This has tentatively been associated with a greater emphasis on foraging. Diagnostic Early Archaic artifacts include the Kirk Corner Notched point. As previously discussed, Palmer points may be

[2] The terminal point for the Archaic is no clearer than that for the Paleoindian and many researchers suggest a terminal date of 4,000 B.P. rather than 3,000 B.P. There is also the question of whether ceramics, such as the fiber-tempered Stallings ware, will be included as Archaic, or will be included with the Woodland. Oliver, for example, argues that the inclusion of ceramics with Late Archaic attributes "complicates and confuses classification and interpretation needlessly" (Oliver 1981:20). He comments that according to the original definition of the Archaic, it "represents a preceramic horizon" and that "the presence of ceramics provides a convenient marker for separation of the Archaic and Woodland periods (Oliver 1981:21). Others would counter that such an approach ignores cultural continuity and forces an artificial, and perhaps unrealistic, separation. Sassaman and Anderson (1994:38-44), for example, include Stallings and Thom's Creek wares in their discussion of "Late Archaic Pottery." While this issue has been of considerable importance along the Carolina and Georgia coasts, it has never affected the Piedmont, which seems to have embraced pottery far later, well into the conventional Woodland period. The importance of the issue in the Sandhills, unfortunately, is not well known.

included with either the Paleoindian or Archaic period, depending on theoretical perspective. As the climate became hotter and drier than the previous Paleoindian period, resulting in vegetational changes, it also affected settlement patterning as evidenced by a long-term Kirk phase midden deposit at the Hardaway site (Coe 1964:60). This is believed to have been the result of a change in subsistence strategies.

Settlements during the Early Archaic suggest the presence of a few very large, and apparently intensively occupied, sites which can best be considered base camps. Hardaway might be one such site. In addition, there were numerous small sites which produce only a few artifacts - these are the "network of tracks" mentioned by Ward (1983:65). The base camps produce a wide range of artifact types and raw materials which has suggested to many researchers long-term, perhaps seasonal or multi-seasonal, occupation. In contrast, the smaller sites are thought of as special purpose or foraging sites (see Ward 1983:67).

Middle Archaic (8,000 to 6,000 B.P.) diagnostic artifacts include Morrow Mountain, Guilford, Stanly and Halifax projectile points. Much of our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work by Jeff Chapman and his students in the Little Tennessee River Valley (for a general overview see Chapman 1977, 1985a, 1985b). There is good evidence that Middle Archaic lithic technologies changed dramatically. End scrapers, at times associated with Paleoindian traditions, are discontinued, raw materials tend to reflect the greater use of locally available materials, and mortars are initially introduced. Associated with these technological changes there seem to also be some significant cultural modifications. Prepared burials begin to more commonly occur and storage pits are identified. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and the Carolinas, where axes, choppers, and ground and polished stone tools are very rare.

Among the most common of all Middle Woodland artifacts is the Morrow Mountain Stemmed projectile point. Originally divided into two varieties by Coe (1964:37,43) based primarily on the size of the blade and the stem, Morrow Mountain I points had relatively small triangular blades with short, pointed stems. Morrow Mountain II points had longer, narrower blades with long, tapered stems. Coe suggested a temporal sequence from Morrow Mountain I to Morrow Mountain II. While this has been rejected by some archaeologists, who suggest that the differences are entirely related to the life-stage of the point, the debate is far from settled and Coe has considerable support for his scenario.

The Morrow Mountain point is also important in our discussions since it represents a departure from the Carolina Stemmed Tradition. Coe has suggested that the groups responsible for the Middle Archaic Morrow Mountain (and the later Guilford points) were intrusive ("without any background" in Coe's words) into the North Carolina Piedmont, from the west, and were contemporaneous with the groups producing Stanly points (Coe 1964:122-123; see also Phelps 1983:23). Phelps, building on Coe, refers to the Morrow Mountain and Guilford as the "Western Intrusive horizon." Sassaman (1995) has recently proposed a scenario for the Morrow Mountain groups which would support this west-to-east time-transgressive process. Abbott and his colleagues, perhaps unaware of Sassaman's data, dismiss the concept, commenting that the shear distribution and number of these points "makes this position wholly untenable" (Abbott et al. 1995:9).

The controversy surrounding Morrow Mountain also includes its posited date range. Coe (1964:123) did not expect the Morrow Mountain to predate 6500 B.P., yet more recent research in Tennessee reveals a date range of about 7500 to 6500 B.P. Sassaman and Anderson (1994:24) observe that the South Carolina dates have never matched the antiquity of their more western

counterparts and suggest continuation to perhaps as late as 5500 B.P. In fact they suggest that even later dates are possible since it can often be difficult to separate Morrow Mountain and Guilford points.

A recently defined point is the MALA. The term is an acronym standing for Middle Archaic and Late Archaic, the strata in which these points were first encountered at the Pen Point site (38BR383) in Barnwell County, South Carolina (Sassaman 1985). These stemmed and notched lanceolate points were originally found in a context suggesting a single-episode event with variation not based on temporal variation. The original discussion was explicitly worded to avoid application of a typology, although as Sassaman and Anderson (1994:27) note, the "type" has spread into more common usage. There are possible connections with both the Halifax points of North Carolina and the Benton points of the middle Tennessee River valley, while the "heartland" for the MALA appears confined to the lower middle Coastal Plain of South Carolina.

The available information has resulted in a variety of competing settlement models. Some argue for increased sedentism and a reduction of mobility (see Goodyear et al. 1979:111). Ward argues that the most appropriate model is one which includes relatively stable and sedentary hunters and gatherers "primarily adapted to the varied and rich resource base offered by the major alluvial valleys" (Ward 1983:69). While he recognizes the presence of "inter-riverine" sites, he discounts explanations which focus on seasonal rounds, suggesting "alternative explanations . . . [including] a wide range of adaptive responses." Most importantly, he notes that:

> the seasonal transhumance model and the sedentary model are opposite ends of a continuum, and in all likelihood variations on these two themes probably existed in different regions at different times throughout the Archaic period (Ward 1983:69).

Others suggest increased mobility during the Archaic (see Cable 1982). Sassaman (1983) has suggested that the Morrow Mountain phase people had a great deal of residential mobility, based on the variety of environmental zones they are found in and the lack of site diversity. The high level of mobility, coupled with the rapid replacement of these points, may help explain the seemingly large numbers of sites with Middle Archaic assemblages. Curiously, the later Guilford phase sites are not as widely distributed, perhaps suggesting that only certain micro-environments were used (cf. Ward [1983:68-69] who would likely reject the notion that substantially different environmental zones are, in fact, represented).

Recently Abbott et al. argue for a combination of these models, noting that the almost certain increase in population levels probably resulted in a contraction of local territories. With small territories there would have been significantly greater pressure to successfully exploit the limited resources by more frequent movement of camps. They discount the idea that these territories could have been exploited from a single base camp without horticultural technology. Abbott and his colleagues conclude, "increased residential mobility under such conditions may in fact represent a common stage in the development of sedentism" (Abbott et al. 1995:9).

From excavations at a Sandhills site in Chesterfield County, South Carolina, Gunn and his colleague (Gunn and Wilson 1993) offer an alternative model for Middle Archaic settlement. He accepts that the uplands were desiccated from global warming, but rather than limiting occupation, this environmental change made the area more attractive for residential base camps. Gunn and Wilson suggest that the open, or fringe, habitat of the upland margins would have been attractive to a wide variety of plant and animal species.

The Late Archaic, usually dated from 6,000 to 3,000 or 4,000 B.P., is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued to intensively exploit the uplands much like earlier Archaic groups with the bulk of our data for this period coming from the Uwharrie region in North Carolina.

One of the more debated issues of the Late Archaic is the typology of the Savannah River Stemmed and its various diminutive forms. Oliver, refining Coe's (1964) original Savannah River Stemmed type and a small variant from Gaston (South 1959:153-157), developed a complete sequence of stemmed points that decrease uniformly in size through time (Oliver 1981, 1985). Specifically, he sees the progression from Savannah River Stemmed to Small Savannah River Stemmed to Gypsy Stemmed to Swannanoa from about 5000 B.P. to about 1,500 B.P. He also notes that the latter two forms are associated with Woodland pottery.

This reconstruction is still debated with a number of archaeologists expressing concern with what they see as typological overlap and ambiguity. They point to a dearth of radiocarbon dates and good excavation contexts at the same time they express concern with the application of this typology outside the North Carolina Piedmont (see, for a synopsis, Sassaman and Anderson 1990:158-162, 1994:35).

In addition to the presence of Savannah River points, the Late Archaic also witnessed the introduction of steatite vessels (see Coe 1964:112-113; Sassaman 1993), polished and pecked stone artifacts, and grinding stones. Some also include the introduction of fiber-tempered pottery about 4000 B.P. in the Late Archaic (for a discussion see Sassaman and Anderson 1994:38-44). This innovation is of special importance along the Georgia and South Carolina coasts, but seems to have had only minimal impact in the uplands of South or North Carolina.

There is evidence that during the Late Archaic the climate began to approximate modern climatic conditions. Rainfall increased resulting in a more lush vegetation pattern. The pollen record indicates an increase in pine, which reduced the oak-hickory nut masts, which previously were so widespread. This change probably affected settlement patterning since nut masts were now more isolated and concentrated. From research in the Savannah River valley near Aiken, South Carolina, Sassaman has found considerable diversity in Late Archaic site types with sites occurring in virtually every upland environmental zone. He suggests that this more complex settlement pattern evolved from an increasingly complex socio-economic system. While it is unlikely that this model can be simply transferred to the Sandhills of South Carolina without an extensive review of site data and micro-environmental data, it does demonstrate one approach to understanding the transition from Archaic to Woodland.

Woodland Period

As previously discussed, there are those who see the Woodland beginning with the introduction of pottery. Under this scenario the Early Woodland may begin as early as 4,500 B.P. and continued to about 2,300 B.P. Diagnostics would include the small variety of the Late Archaic Savannah River Stemmed point (Oliver 1985) and pottery of the Stallings and Thoms Creek series. These sand tempered Thoms Creek wares are decorated using punctations, jab-and-drag, and incised designs (Trinkley 1976). Also potentially included are Refuge wares, also characterized by sandy paste, but often having only a plain or dentate-stamped surface (Waring 1968). Others would have the Woodland beginning about 3,000 B.P. and perhaps as late as 2,500 B.P. with the introduction of pottery, which is cord-marked or fabric-impressed and suggestive of influences from northern cultures.

There remains, in South Carolina, considerable ambiguity regarding the pottery series found in the Sandhills and their association with coastal plain and piedmont types. The

earliest pottery found at many sites may be called either Deptford or Yadkin, depending on the research or their inclination at any given moment.

The Deptford phase, which dates from 3050 to 1350 B.P., is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Inner Coastal Plain/Sand Hills, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98; see also Sassaman 1993 for similar data recovered from 38AK157).

Further to the north and west, in the Piedmont, the Early Woodland is marked by a pottery type defined by Coe (1964:27-29) as Badin.[3] This pottery is identified as having very fine sand in the paste with an occasional pebble. Coe identified cord-marked, fabric-marked, net-impressed, and plain surface finishes. Beyond this pottery little is known about the makers of the Badin wares and relatively few of these sherds are reported from South Carolina sites.

Somewhat more information is available for the Middle Woodland, typically given the range of about 2,300 B.P. to 1,200 B.P. In the Piedmont and even into the Sand Hills, the dominant Middle Woodland ceramic type is typically identified as the Yadkin series. Characterized by a crushed quartz temper the pottery includes surface treatments of cord-marked, fabric-marked, and a very few linear check-stamped sherds (Coe 1964:30-32). It is regrettable that several of the seemingly "best" Yadkin sites, such as the Trestle site (31An19) explored by Peter Cooper (Ward 1983:72-73), have never been published.

Yadkin ceramics are associated with medium-sized triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least 1650 B.P. coexisted with this Triangular Tradition. The Yadkin in South Carolina has been best explored by research at 38SU83 in Sumter County (Blanton et al. 1986) and at 38FL249 in Florence County (Trinkley et al. 1993)

In some respects the Late Woodland (1,200 B.P. to 400 B.P.) may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500-700 years. From the vantage point of the Middle Savannah Valley Sassaman and his colleagues note that, "the Late Woodland is difficult to delineate typologically from its antecedent or from the subsequent Mississippian period" (Sassaman et al. 1990:14). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

Introduction to the Historic Overview

Like many South Carolina counties, Lancaster lacks anything that might be called a thorough history. Most of the available documents focus on genealogical research

[3] The ceramics suggest clear regional differences during the Woodland which seem to only be magnified during the later phases. Ward (1983:71), for example, notes that there are "marked distinctions" between the pottery from the Buggs Island and Gaston Reservoirs and that from the south-central Piedmont.

associated with various families or cemeteries and the *Historic Site Survey, Lancaster County* prepared by the Catawba Regional Planning Council in 1976 offers only a brief introduction to the history of the region. A more comprehensive survey is offered by Schneider and Jackson (1986) or Getty and Associates (1988).

Since as of 30 years ago the transmission corridor was entirely within the borders of Kershaw County, we have elected to focus primarily on Kershaw County history. In particular we will focus on the history of the Camden area, which is located only about 13 miles to the south of the project corridor.

Historic Overview of the Camden Area

Although four counties, Berkeley, Craven, Colleton, and Granville, were created by the Carolina Proprietors between 1682 and 1685, the Anglican parishes, established in 1706, became the local unit of political administration. Still, the coastal area maintained the reins of power and the Back County was largely unrepresented. In addition, with the settlement of the Yemassee War of 1715, many Native American groups were forced from the region, allowing a more aggressive settlement policy (Wallace 1951). From about 1715 to 1727 there was a period of tremendous lust for land, with the accompanying fraud so common to period politics. In 1730, Governor Robert Johnson began a policy of frontier settlement, hinged on the creation of 11 townships intended to increase the number of small, white farmers. This increased settlement would provide protection from South Carolina's enemies from within (as the African American slaves were viewed) and from without (including both the Spanish and the Native Americans).

With the creation of Georgia, only nine of the proposed 11 townships were actually established. One of these was to be "on the River Watery," and called Fredricksburgh Township (Kirkland and Kennedy 1905: 9-10). Laid out with the Wateree River on one side, it was to be six miles square and contain 60,000 acres. An area 12 miles square was to surround the township, being reserved for those settling within the township. Each resident was to receive a town lot and 50 acres for each member of their family. The Royal Council employed James St. Julien for £500 to survey the township in 1733.

The Township focused on the area around Pine Tree Creek. Kirkland and Kennedy (1905:I:13) note that the original grand plat for Fredricksburgh no longer survives and only three town lots were apparently even laid out, suggesting a less than successful beginning. Most of the land appears to have been sold as large tracts. This practice continued well into the 1750s when a number of Quakers came into the region, settling primarily along the river.

St. Mark's Parish was established in the area from the Congaree River northward to the Lynches River in 1757. One of the earliest records of settlement in the area is the establishment of Joseph Kershaw's store at Pine Tree Creek, with a small village growing up around the store. There is no mention of Camden until 1768 when the Assembly established a Circuit Court at Camden in the Camden District. The first court was held at "Mr. Kershaw's brew house" in Camden in 1773 (Wittkowsky and Moseley 1923:8).

During the American Revolution, Camden was the scene of much turmoil. The City was occupied by British forces from June 1780 through May 1781. Two battles, both horrific defeats for the American forces, took place in the area. The Battle of Camden, in August 1780, took place about 8 miles north of town and Nathanael Gates was decisively defeated by Lord Cornwallis. At Hobkirk Hill in April 1781, the Americans, under Horatio Greene, were defeated by the British forces under Lord Rawdon. Although a victory for the British, the situation afterwards was so untenable that they withdrew from Camden a short time later. Wallace notes that many of the loyalist families that left Camden with Lord Rawdon "perished miserably in the huts of 'Rasdontown' outside of Charleston" (Wallace 1951:316).

After the American Revolution and into the early nineteenth century, Camden and the surrounding plantations slipped into a relatively prosperous peace. Camden was visited by Washington during his 1791 Southern tour and the town had been incorporated only a few months before Washington's arrival. Although called "a very pretty Town" by North Carolinian James Iredell, Washington characterized it only as:

> A small place with appearances of some new buildings. It was much injured by the British whilst in their possession (Lipscomb 1993:71).

While in Camden, Washington dined at one of the finest houses in town – the home of John Chesnut on the corner of Fair and King Streets (now moved to 1413 Mill Street) and later toured the nearby battlefields and their still extant skirmish lines.

The architecture of Camden was further reviewed by Robert Gilmor during his trip through the county in the first decade of the nineteenth century. He noted that:

> Camden is a small pretty village, made beautiful by the handsome house of Col. Chesnut & his son, with one or two others, all which are built in the New York style, with piazzas & painted white with red roofs (Teal 1997:n.p.).

By the 1820s, the Kershaw District had been created and Mills notes that the Quakers had largely deserted the Camden area, primarily as a response to slavery (Mills 1972[1826]:586). Mills' *Atlas* (Figure 7), shows no settlements on the transmission corridor, however, Ben Hail's Mill and Plantation is located in the vicinity on Hanging Rock Creek. Cotton was the staple, although corn, wheat, and rye were being raised for home consumption. Camden was also a center for milling both before and after the American Revolution (Mills 1972[1826]:588). The influence of cotton can be seen in the increase of slavery in the district. In 1800, there were 4,606 whites in the district with 2,530 African American slaves. By 1820, the white population had grown to only 5,628, while the number of slaves had increased to 6,692. This increase in slave population would not only increase, but the white population would begin to decline toward the Civil War. In 1850, for example, there were 9,578 slaves, but only 4,681 whites (DeBow 1854:302; Mills 1972[1826]).

Camden had recovered from the Revolution and Mills reported that it was the center of the cotton trade for this region of South Carolina (Mills 1972[1826]:590).

Kershaw's first railroad did not arrive until 1846, with the opening of a branch line

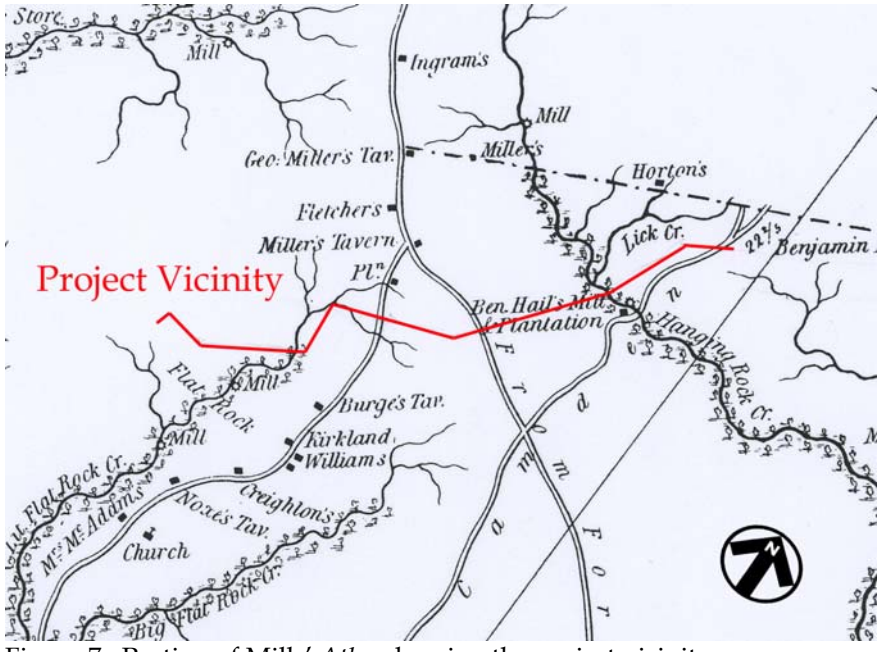

Figure 7. Portion of Mills' *Atlas* showing the project vicinity.

connecting Camden with the main line that ran from Charleston to Columbia. Prior to this, Camden's mercantile interests were promoted by hauling cotton on the river to either Charleston or Georgetown. A steamboat line between Camden and Charleston was begun in 1835. While not successful because of the fluctuating water levels, it was continued intermittently into the early 1900s (Wittkowsky and Moseley 1923:12).

Camden was largely quiet during the Civil War and it wasn't until Sherman's march that the local inhabitants experienced war first-hand. A detachment entered Camden on February 24, 1865 and burned a number of buildings. Union troops again came through on April 18, and the town was finally occupied by a Federal garrison of the 25th Ohio Volunteers on June 14 under Captain C.W. Ferguson (Kirkland and Kennedy 1905:I:34-35). Civil authorities took control of the city on November 1, 1865, although troops were not removed until March 1866.

After the Civil War, plantation houses were destroyed, portions of Camden were burned, the agricultural base of slavery was destroyed, and the economic system was in chaos. Rebuilding after the war involved two primary tasks: forging a new relationship between white land owners and black freedmen, and creating a new economic order through credit merchants. General sources discussing the changes in South Carolina include Williamson (1965) and Zuczek (1996).

South Carolina's reconstruction was made harder than necessary by a ruling class that refused to accept the demise not only of the Confederacy, but also of slavery. Foner notes that the South Carolina and Mississippi legislatures further antagonized the Radicals in Congress with the enactment of the first, and most severe, of the so-called Black Codes toward the end of 1865. He observes that:

> South Carolina's Code was in some respects even more discriminatory [than Mississippi's], although it contained provisions, such as prohibiting the expulsion of aged freedmen from plantations, designed to reinvigorate paternalism and clothe it with the force of law. It did not forbid blacks to rent land, but barred them from following any occupation other than farmer or servant except by paying an annual tax ranging from $10 to$100 (a severe blow to the free black community of Charleston and to former slave artisans). The law required blacks to sign annual contracts and included elaborate provisions regulating relations between "servants" and their "masters," including labor from sunup to sundown and a ban on leaving the plantation, or entertaining guests upon it, without permission of the employer. A vagrancy law applied to unemployed blacks, "persons who lead idle or disorderly lives," and even traveling circuses, fortune tellers, and thespians (Foner 1988:199-200).

Curiously these, and similar, laws were not developed by extreme secessionists. Rather, South Carolina's Black Code was articulated by conservative Whig Unionists, like Benjamin Perry. Although some in the state described the efforts as "madness" that would never be accepted by the Radical Congress, more were obsessed by the idea that blacks would never work unless forced to do so. They were also alarmed by the increasing militancy of their former "servants."

As Congress considered a variety of measures to ensure reconstruction, violence raged over many areas of South Carolina, including the Kershaw District (Zuczek 1996:53). Two "reconstruction" acts were passed in March 1867 over Johnson's veto. Congress carved the South

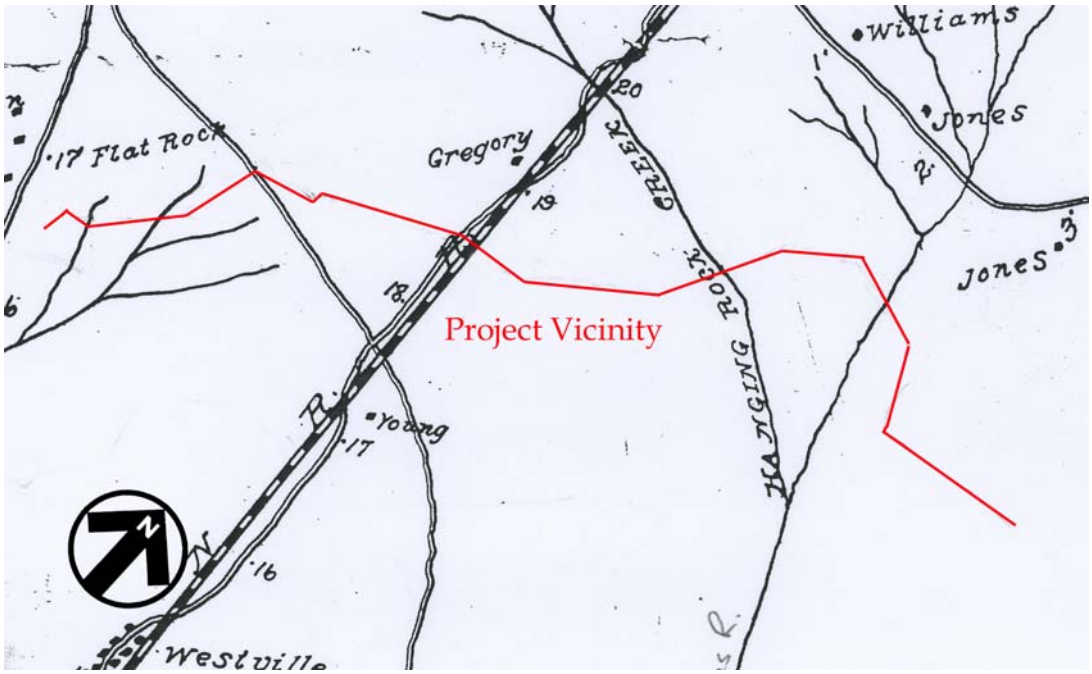

Figure 8. Portion of the 1901 *Map of Kershaw County* showing the transmission corridor.

into five military districts. Many ex-Confederates were at least temporarily barred from voting or holding office, new governments were created, and blacks were given the right to vote. Finally, only after ratification of the Fourteenth Amendment would Southern states finally be readmitted to the Union. South Carolina began to realize the results of defeat in war.

The milling industry that had a long history in the Camden area at least partially revitalized after the Civil War. By 1884, there were 43 flour and grist mills reported in Kershaw County, along with 16 lumber mills and six turpentine refineries. Of the grist and flour mills about two-thirds were water powered (Anonymous 1884). By 1915, the number of mills had been reduced to three, although two cotton mills were situated in Camden – the Hermitage Cotton Mills with over 16,000 spindles and the Pine Creek Manufacturing Company with nearly 19,000. The Hermitage produced sheetings, while Pine Tree manufactured print cloths (Watson 1916:Table 1).

While some industry came to the Camden area after the Civil War, at least partially encouraged by the Seaboard Air Line, which was completed in 1899, agriculture was still the primary occupation in the region. In 1915, there was one cotton seed oil mill in Camden and the cotton crop had steadily increased from 21,527 bales in 1910 to 30,652 bales in 1914 (Watson 1916:79).

The 1901 *Map of Kershaw County* shows the transmission corridor with no settlements nearby (Figure 8). It is interesting to note that toward the western portion of the line is "Flat Rock," which is most likely the modern-day granite quarry.

By the early 1920s, Wittkowsky and Moseley commented that farm tenancy in the county was "one of the worst, if not the worst, economic and social evils" (Wittkowsky and Moseley 1923:31). In Kershaw County, 67.1% of the farms were worked by tenants (including both renters and sharecroppers), compared to a state average of only 64.5%. Farm mortgages were high and relatively little of the land (only 47.8%) was improved – described as "entirely too little for our county" (Wittkowsky and Moseley 1923:48).

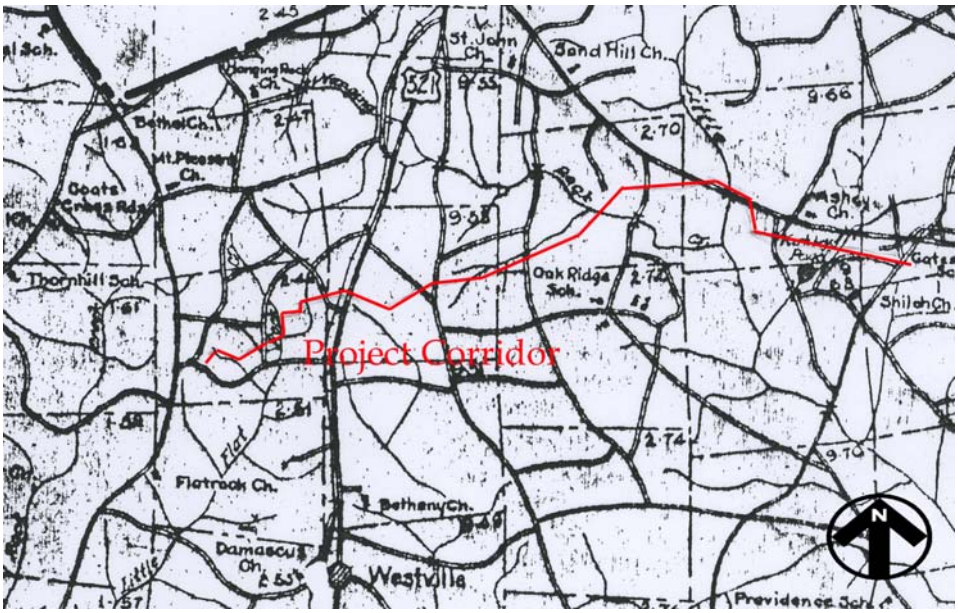

Figure 9. Portion of a 1941 map by the Lynches River Soil Conservation District showing the transmission corridor.

Moreover, the reliance on cotton was strangling economic development, encouraging tenancy, and promoting the waste of the land. They also warned that the cotton kingdom was focusing attention away from subsistence crops, so that only a small proportion of the food and feed necessary for the county was actually produced in surrounding farms (Wittkowsky and Moseley 1923:50). They also warned of the coming of the boll weevil and that cotton production had already fallen from 40,000 bales in 1920 to only 13,000 bales in 1921.

Camden is situated in what was called the "Black Belt," the area of oldest plantations. During the 1930s, this area had very large proportions of both tenants and blacks. One of the best studies of tenancy in this region was that by T.J. Woofter (1936). In 1930, 73% of the farmers in the Black Belt were tenants (compared to 60% in the adjacent Atlantic Coastal Plain and 63% in the Piedmont). Nearly half of the plantations were almost exclusively operated by African American tenants or were operated by both whites and blacks. Only 2.7% of the plantations were operated only by whites. Mixed tenancy was also most common (representing 75.7% of the tenants), followed by croppers (representing 13.4%). While the net income of the plantation owner in the Black Belt was a meager $1,462, the tenants' net incomes were only $127 for croppers and $106 for shares. Tenancy cast a very long shadow over all of South

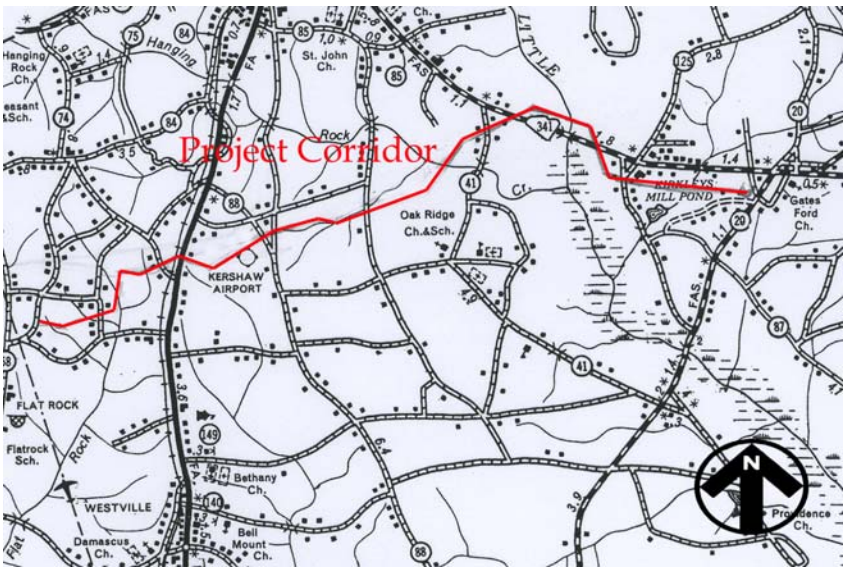

Figure 10. Portion of the 1950 *General Highway and Transportation Map of Kershaw County* showing the transmission corridor.

Carolina – including Kershaw County. Although the literature is filled with tenancy studies, those by Goldenweiser and Truesdell (1924), Johnson et al. (1935), and Poe (1934) provide an excellent overview.

A 1941 map by the Lynches River Soil Conservation Dis-trict shows Kershaw County with the transmission route (Figure 9). Schools and churches are located in vicinity of the corridor, however none are within sight.

The *General Highway and Transportation Map of Kershaw County* from 1950 shows many structure along the corridor, however, none of these structures were encountered in the survey (Figure 10).

It was in 1977 when Kershaw County lost a portion of its northern border to Lancaster County (Long 1997).

METHODS

Archaeological Field Methods

The initially proposed field techniques involved the placement of shovel tests at 100-foot intervals along the center line of the corridor which has a 75-foot right-of-way.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially from the western portion of the corridor, heading east. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1.0 foot or until subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

Should sites (defined by the presence of three or more artifacts from either surface survey or shovel tests within a 50 feet area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

These proposed techniques were implemented with no significant modifications. A total of 502 shovel tests were excavated along the transmission route with additional testing at the two identified sites.

The GPS positions were taken with a WAAS enabled Garmin 76 rover that tracks up to twelve satellites, each with a separate channel that is continuously being read. The benefit of parallel channel receivers is their improved sensitivity and ability to obtain and hold a satellite lock in difficult situations, such as in forests or urban environments where signal obstruction is a frequent problem. WAAS or Wide Area Augmentation System is a system of satellites and ground stations that provide GPS signal corrections, yielding higher position accuracy – generally an accuracy of 10 feet or better 95% of the time. This was a problem at the site area where a second growth of pines and hardwoods and planted pines provided a dense canopy.

Figure 11. View of existing transmission line at the western tap point.

Figure 12. View of the substation lot, still wooded.

Architectural Survey

As previously discussed, we elected to use a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects that appeared to have been constructed before 1950. Typical of such projects, this survey would record only those which has retained "some measure of its historic integrity" (Vivian n.d.:5) and which were visible from public roads.

For each identified resource we would complete a Statewide Survey Site Form and at least two representative photographs would be taken. Permanent control numbers would be assigned by the Survey Staff of the S.C. Department of Archives and History at the conclusion of the study. The Site Forms for the resources identified during this study would be submitted to the S.C. Department of Archives and History. As previously mentioned, both Lancaster and Kershaw counties have received a comprehensive countywide architectural survey (Gettys and Associates 1988 and New South 2002 - respectively).

Site Evaluation

Archaeological sites would be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

> the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent

> a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

> ▪ identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
>
> ▪ identification of the historic context applicable to the site, providing a framework for the evaluative process;
>
> ▪ identification of the important research questions the site might be able to address, given the data sets and the context;
>
> ▪ evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and
>
> ▪ identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on an archaeological site's ability to address significant research topics within the context of its available data sets.

For architectural sites, the evaluative process would be somewhat different. Given the relatively limited architectural data available for most of the properties, we would focus on evaluating these sites using National Register Criterion C, looking at the site's "distinctive characteristics." Key to this concept is the issue of integrity. This means that the property needs to have retained, essentially intact, its physical identity from the historic period.

Particular attention would be given to the integrity of design, workmanship, and materials. Design includes the organization of space, proportion, scale, technology, ornament-tation, and materials. As *National Register Bulletin* 36 observes, "Recognizability of a property, or the ability of a property to convey its significance, depends largely upon the degree to which the design of the property is intact" (Townsend et al. 1993:18). Workmanship is evidence of the artisan's labor and skill and can apply to either the entire property or to specific features of the property. Finally, materials -- the physical items used on and in the property -- are "of paramount importance under Criterion C" (Townsend et al. 1993:19). Integrity here is reflected by maintenance of the original material and avoidance of replacement materials.

Laboratory Analysis

The cleaning and analysis of artifacts would be conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the South Carolina Institute of Archaeology and Anthropology, the closest regional repository. The site forms for the identified archaeological

sites have been filed with the South Carolina Institute of Archaeology and Anthropology. Field notes have been prepared for curation using archival standards and will be transferred to that agency as soon as the project is complete.

Analysis of the collections followed professionally accepted standard with a level of intensity suitable to the quantity and quality of the remains. In general, the temporal, cultural, and typological classifications of prehistoric remains follow such authors as Yohe (1996), Blanton et al. (1986), and Oliver et al. (1986).

RESULTS OF SURVEY

Introduction

As a result of this cultural resources survey, two sites, 38LA566 and 38LA567, were identified (Figure 13). Both sites are prehistoric scatters that are recommended not eligible for the National Register for their limited ability to address significant research questions.

The architectural survey failed to identify any structures that would be potentially eligible for the National Register. The countywide architectural surveys (Getty and Associates 1998 for Lancaster and New South 2002 for Kershaw) are thought to be complete. The previously recorded structures, 1009, 1165, and 1193, were revisited, however the transmission corridor cannot be seen from these resources.

Archaeological Resources

38LA566

Site 38LA566 is a surface and subsurface scatter of prehistoric artifacts (Figure 14). It is located on a ridge nose overlooking Hanging Rock Creek at an elevation of about 430 feet AMSL. A sparse second growth of pines and hardwoods surround the area. A GPS UTM for the site is 540602E 3817760N (NAD27 datum).

Shovel testing was being performed at 100-foot intervals along the corridor until a shovel test at Station 252+58 (500R500) was positive, producing a quartz flake. Additional testing was performed at 25-foot intervals in the cardinal directions until two consecutive negative tests were encountered. A total of 44 shovel tests were excavated with 10 positive (23%).

Soils in the area generally represented the Ailey Series, which has an A horizon of light brownish gray (10YR6/2) sand to 0.8 foot over a light yellowish brown (10YR6/4) sand to 2.2 feet in depth. Artifacts were generally found in the light yellowish brown subsoil.

A total of 49 artifacts were found, which are itemized in Table 2. Although potsherds were recovered, they are all residual and not diagnostic. The site area, which encompasses shovel tests and surface artifacts, measures about 100 feet north-

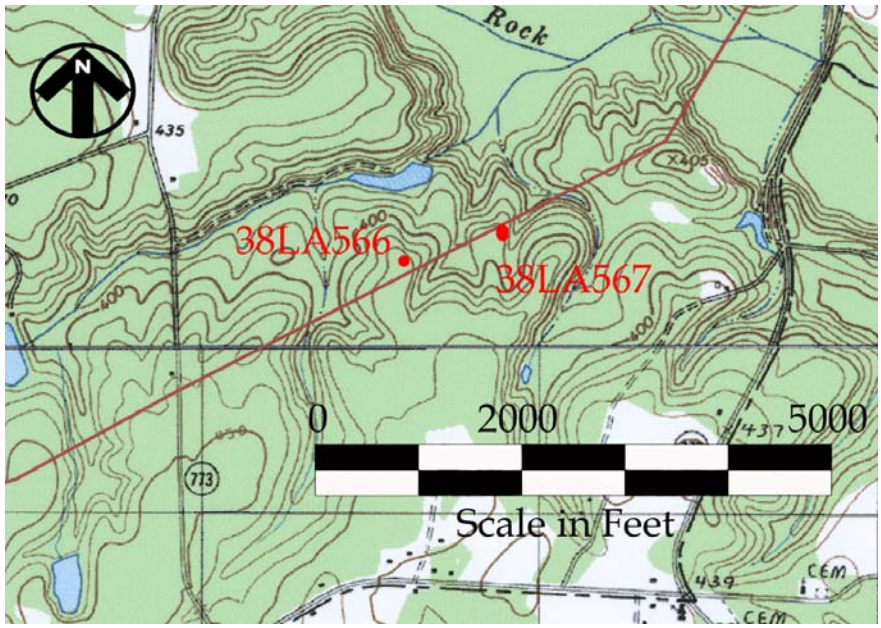

Figure 13. Topographic map showing the two identified sites (basemap is USGS Kershaw 7.5').

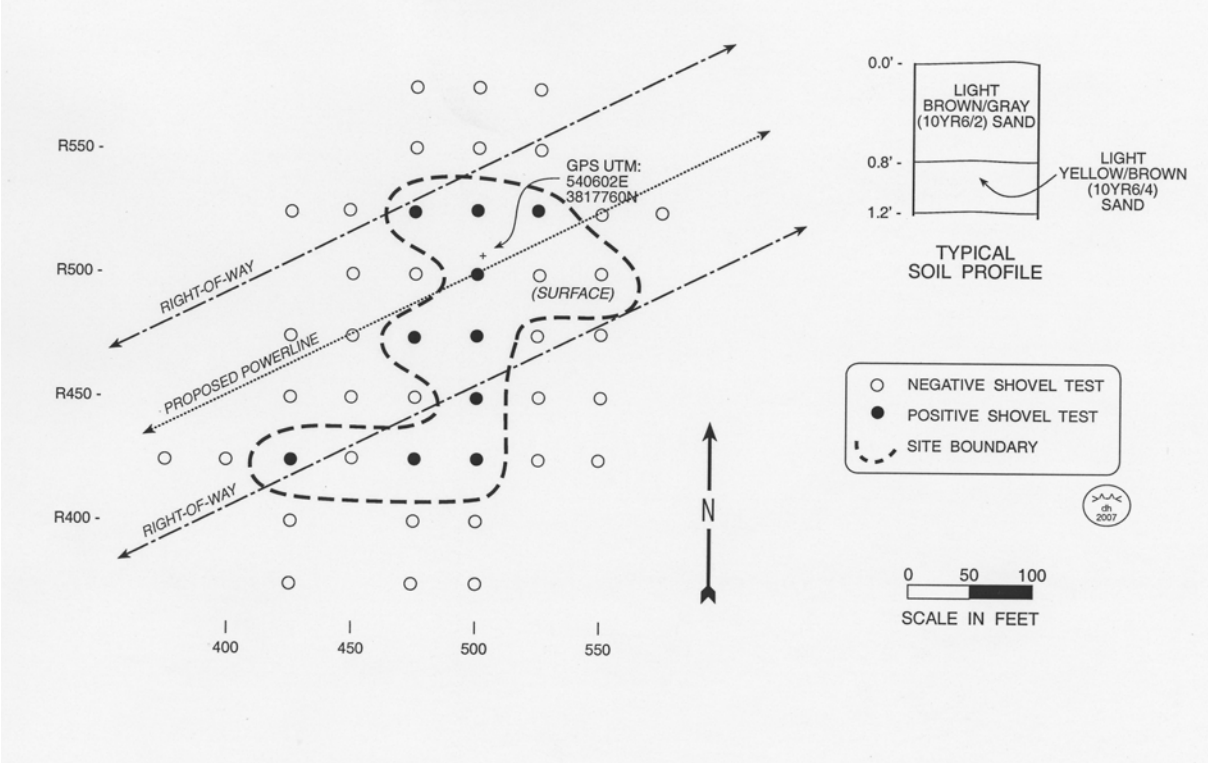

Figure 14. Sketch map and soil profile for 38LA566.

south by 75 feet east-west.

Although many of the artifacts were found in the subsoil (possibly the result of bioturbation), enough were found on the surface to indicate disturbance. In addition, all the artifacts, including sherds, are extremely small, measuring well under 1-inch in diameter.

No features (potentially recognized by darker soils, clusters of fire cracked rock, concentrations of artifacts, or deeper deposits) were identified in shovel testing. The only data sets present are limited and not particularly useful for addressing significant research questions.

The site is recommended not eligible for inclusion on the National Register of Historic Places. No additional management activities are recommended pending the review and

Table 2.
Artifacts from 38LA566

	425 R425	425 R475	425 R500	450 R500	475 R475	475 R500	500 R500	525 R475	525 R500	525 R525	Surface	
Flake, quartz	4	1	1	1	2		1			1	12	
Flake, quartzite									2		13	
Flake, chert		2				1						
Sherd, small								3			5	
TOTAL												**49**

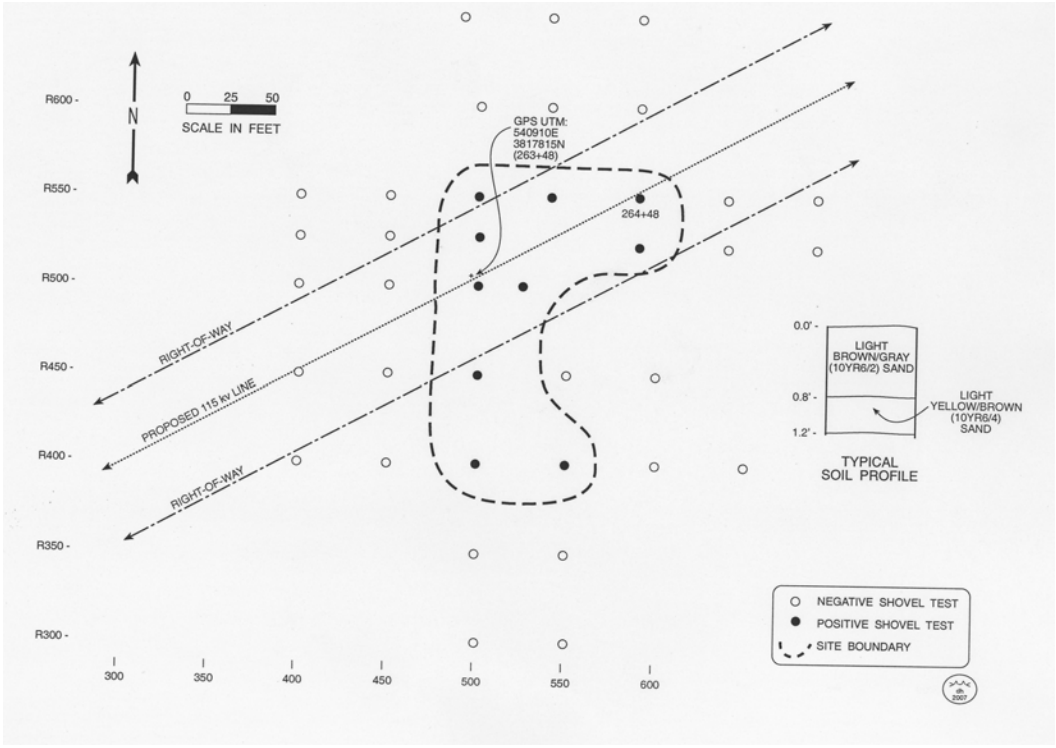

Figure 15. Sketch map and soil profile for 38LA567.

concurrence of the State Historic Preservation Office.

38LA567

Site 38LA567 consists of a surface and subsurface scatter of prehistoric artifacts coupled with a sparse scatter of historic artifacts in a mixed pine and hardwood forest (Figure 15). The site is located on a ridge nose and side slope overlooking Hanging Rock Creek at an elevation of about 380 feet AMSL. A central UTM coordinate is 540910E 3817815N (NAD27 datum).

The site was discovered when the shovel test at Station 263+48 (500R500) was positive, producing one quartz flake. Additional testing began at 25-foot intervals, then was extended to 50-foot intervals in the cardinal directions until two consecutive negative tests were encountered.

Table 3.
Artifacts from 38LA567

	400 R500	400 R550	450 R500	500 R500	500 R525	525 R500	525 R590	550 R500	550 R540	550 R590	Surface	
Glass, amber	1											
Stoneware, salt glazed											2	
Flake, quartz		1		1	1	2	1	2	7	4	5	
Flake, metavolcanic											1	
Core fragment, quartz									3			
Biface fragment			2									
TOTAL												**33**

Figure 16. View of resource 1165.

A total of 39 shovel tests were excavated with 10 positive (26%).

Shovel test profiles resembled the Ailey Series, which has an A horizon of light brownish gray (10YR6/2) sand to 0.8 foot over a light yellowish brown (10YR6/4) sand to 2.2 feet in depth. Artifacts were found on the surface, the A horizon, and in the subsoil.

A total of 33 artifacts were found and are itemized in Table 3. All of the prehistoric artifacts were lithics, but a small historic component of salt glazed stoneware and amber glass was also present. No diagnostic artifacts were found in the site, which measured about 150 feet north-south by 100 feet east-west. Like the previous site, most of the lithics were extremely small in size, indicating secondary flakes.

No features, which may be recognized by darker soils, clusters of fire cracked rock, concentrations of artifacts, or deeper deposits, were identified in shovel testing. The only data sets are limited and not useful for addressing significant research questions.

This site is recommended not eligible for the National Register of Historic Places. No additional site management activities are recommended pending the review and concurrence of the State Historic Preservation Office.

Figure 17. View of resource 1193.

Historic and Architectural Resources

As previously mentioned, three structures were identified from prior surveys that were located in the 0.5 mile APE. The 2002 Kershaw County survey by New South identified 1165, a c. 1915 house (Figure 16), and 1193, a c. 1904 house (Figure 17). Both of these houses have been determined not eligible for the National Register of Historic Places. The 1988 Lancaster County survey by Gettys and Associates identified 1009, a c. 1910 house (Figure 18). This house was not evaluated for the National Register.

Figure 18. View of resource 1009.

The current survey revisited the structures to update the conditions. All the houses appear to be in similar condition as stated by the previous surveys. Resources 1165 and 1193 are still recommended not eligible for the National Register, but cannot be seen from the corridor. Resource 1009, which is located incorrectly on the S.C. Department of Archives and History GIS, is located at the edge of the 0.5 mile APE and cannot be seen from the corridor. The house, however, looks to have had several alterations including the addition of a synthetic siding, possible replacement of brick piers, and addition of storm windows. It appears to lack distinctive architectural merit and is likely not eligible for the National Register of Historic Places.

Figure 19. View of the house on Mill Creek Road.

No additional resources that may be potentially eligible for the National Register were found in the project APE.

One house, located on Mill Creek Road, had

Figure 20. View of the chimney and rear of the Mill Creek Road house.

been briefly evaluated due to the concern of the owner that his house was historic (Figure 19). The 2002 Kershaw County architectural survey did not record the structure, so in December 2006, Dr. Michael Trinkley of Chicora Foundation visited and photographed the house. Dr. Trinkley stated that the house had been extensively altered on the exterior including the addition of vinyl siding, storm windows, infill between the foundation piers, a rear addition, reworking of the front porch, replacement of steps with new brick, use of asphalt shingles, and the removal and subsequent rebuilding of the chimney (Figure 20) (Michael Trinkley, personal communication 2007). Very little of the original historic fabric exists, so unless the house is associated with an important historic event (Criterion A) or associated with an important person (Criterion B), the house is not eligible for its physical attributes (Criterion C). While the house is only about 600 feet from the transmission corridor, newly planted pines shield the view between the two.

We should also note that the corridor crosses a railroad grade on US 521 toward the western end of the corridor (Figure 21). The rail line, which is no longer present, belonged to Southern Railway. The most recent map, the 1988 Kershaw 7.5′ topographic map, still shows the railway, so it has been recently disassembled (within the past 20 years).

The rail bed is still recognizable as such by its elevation several feet above the ground level, its straight line, and even the existence of gravel

Figure 21. View of the railway line crossing the corridor.

on the surface. One railroad tie was located on the western side of the railroad bed in the woods.

While in good condition and recognizable as a railway, there are numerous miles of this line that are in equally good condition. In addition, the line is located immediately adjacent to US 521 and the poles for the transmission line will likely be set back off the highway – spanning the road and rail line. It is unlikely that the transmission corridor will have much of an impact on this small 75-foot section of the railway.

CONCLUSIONS

This study involved the examination of a 9.5 mile corridor for a transmission line in northern Kershaw and southern Lancaster counties. This report, conducted for Mr. Tommy Jackson of Central Electric Power Cooperative, provides the results of the investigation and is intended to assist the company with their historic preservation responsibilities.

As a result of this investigation two sites, 38LA566 and 38LA567, were identified. Site 38LA566 is a prehistoric scatter while 38LA567 is a prehistoric and sparse historic scatter. Both sites are recommended not eligible for the National Register for their inability to address significant research questions.

Both Kershaw and Lancaster counties have received a comprehensive architectural survey and this study reviewed those sites previously identified for any change in their eligibility status and also conducted additional survey to determine if other structures worthy of recordation might be identified.

Structures 1193 and 1165 were determined not eligible for the National Register. These structures appear to be in similar condition to when they were first recorded, so no re-evaluation was considered. Resource 1009, which was never evaluated, is recommended not eligible, however, this structure, along with the previous two, cannot be seen from the transmission corridor and will not be visually impacted.

It is possible that archaeological remains may be encountered during construction activities. As always, contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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Chicora Foundation, Inc.
PO Box 8664 ▪ 861 Arbutus Drive
Columbia, SC 29202-8664
Tel: 803-787-6910
Fax: 803-787-6910
Email: Chicora@earthlink.net
www.chicora.org